

# DRIVER'S SEAT

## Repairing and Raising the Bar: FM 17-12-1/-2 Revision

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As you read this article, the new 17-12-1/2 is at the printer. In January, it went out to the force on disk. The manual has been improved as a training tool, and will make gunnery training more challenging. The bar has been repaired and raised a bit; more importantly, this manual sets the stage for raising the bar much higher over the next three years. It is an interim manual only; within three years, separate gunnery manuals for M1A1 and M1A2-series tanks must be published. These manuals must change gunnery training standards radically, to take even further advantage of our killing and training systems.

This manual should have been revised in FY 96. There has been a real need to combine M1, M1A1, and M1A2 gunnery into one standardized gunnery program. Once begun, the revision involved more input from the field than has been usual in the past. A Master Gunners' conference (the first in several years) was hosted by Crew Gunnery Doctrine Branch in November, 1997, and the presentations and discussions involving Master Gunner Branch, III Corps, USAREUR, U.S. Marines, and Army Reserves/National Guard were very useful in resolving issues and identifying critical updates and revisions. To all involved in the conference, thanks for helping the entire force. To our "stuckees" for this new manual, especially MSG Delabar, SFC Lipsey, and SSGs Pease and Machell: "Well done." Now, get back to work.

Following are the significant changes:

- Standardized Tables added for all Abrams tanks that incorporate up to four targets in an engagement.
- Delayed target presentations (between 10 to 25 seconds).
- All M1A2 gunnery employment techniques added.
- New scoring procedures developed. The same scorecard is used for the M1A1 and M1A2 tables (only the points for given times are different), which eliminate the need to use the old charts (times/points ON the score-

card). Once trained, you will find it much easier to use in the tower.

- Added requirement for IVIS/Digital traffic (for those vehicles so equipped) to qualify tank tables. A digital contact report must be sent after each engagement. Crews that lose the digital link during the engagement may complete the engagement, then pull off for maintenance. IVIS competency is a core crew competency and must be reinforced during Tables IV, VIII, and XII.
- New crew penalty for "not adhering to conditions:" 0 points for the engagement. No more "30 point for crew cut" for cheating. You lose the engagement.
- 30 point penalty for not engaging all targets in an engagement.
- 10% penalty from the TOTAL SCORE for killing friendly targets on TT XII.
- Minimum and maximum lateral spread for targets implemented. Based on range of targets, the goal is that two targets cannot be acquired in 10 pwr.
- Added "screening under extreme conditions" that gives guidance, tank-to-target range, and the target dimensions from 500m to 1500m in 100m increments. Intent is to use this information only when conditions make it impossible to screen normally, and should not be used because they might make screening "easier."
- Weapon planning for 120mm main gun increased from 2000m to 2500m. This advantages the increased killing distance of the gun when planning engagement/displacement.
- Deleted requirement to remove/install the breechblock on TCGST. Station 5 requirements are now: clearing the gun, function check, firing pin check, and firing circuit check.
- Eliminated stations 11, 12, 14, 15, 16 from the TCGST. They are performed in the UCFT. Eliminated station 13, because it had nothing to do with vehicle/crew safety.
- Updated the COFT/AGTS prerequisites for live-fire training.
- Allows COFT/AGTS to be used in place of TT I through III. Specifies the

engagements which can replicate the tables. Units should still prefer to use the tables in order to train crew interaction on the actual platform.

Six additional improvements were made in this new manual:

- A screening test action checklist was added to guide "tower talk" during screening.
- Boresighting and zeroing techniques were added for tank-mounted machine guns.
- Chapter 4 (Fire Control System Calibration) and Chapter 5 (Screening Test) were combined into a new Chapter 4 (Fire Control System Calibration and Maintenance) for M1, M1A1, and M1A2 tanks.
- TCGST roll-up sheets were added for individual, platoon, and company.
- Tactical tables have been placed back in the manual.
- An Appendix B replaces FM 17-12-7, *Tank Combat Training Devices*.

The Chief of Armor has given us three years to devise new gunnery training standards and techniques. Future tank tables must test armor crewmen on their gunnery, tactical, and information management skills. Tactical Gunnery Training must eliminate canned scenarios and predictable engagements. Firing ranges, as well as vehicles, must be completely digitized. Alibis must be eliminated, and crews required to "fight through" malfunctions. The qualification "battlefield" must require target acquisition and engagement "beyond the fenders" (let's try spreading arrays out to the rear fenders) using TWGSS. This raises the possibility of two or more TTVIII qualification runs, one using TWGSS, in order to increase acquisition/engagement spread while ensuring safety. While there must be Armor-wide tasks (engagements), the range scenarios must be unit METL-driven; there should be several versions of TT XII, for example.

That should keep Crew Gunnery Branch busy for three years. Our force will benefit, especially if our entire force participates in the process.